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Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development

Report of the Secretary-General

Summary

The present report, submitted pursuant to General Assembly resolution 65/152, provides an update on the implementation of Agenda 21 and the Plan of Implementation of the World Summit on Sustainable Development, together with actions taken by Governments, organizations of the United Nations system and major groups, in advancing the implementation of sustainable development goals and targets, including through partnerships for sustainable development. The report also includes the progress of the preparations for the United Nations Conference on Sustainable Development.

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I. Introduction

1. The present report provides information on the progress made in implementing General Assembly resolution 65/152. The resolution called for the effective implementation of the commitments, programmes and time-bound targets adopted at the World Summit on Sustainable Development and the fulfilment of provisions relating to means of implementation, as contained in the Johannesburg Plan of Implementation. The resolution reiterated that the Commission on Sustainable Development is the high-level body responsible for sustainable development within the United Nations system and a forum for the consideration of issues related to the integration of the three dimensions of sustainable development.

2. The report comes in the middle of the preparatory process for the United Nations Conference on Sustainable Development, and at a time when the Commission on Sustainable Development failed to reach a conclusion largely because of the lack of consensus on repeating past agreements pertaining to the means of implementation.

3. This report should be read in conjunction with other reports submitted under the agenda item on sustainable development.

II. Overview

4. Last year's report[1] emphasized the broad and multidimensional nature of sustainable development, integrating and balancing the three dimensions — economic, social and environmental — as well as serving as a bridge between developed and developing countries, among Governments, business and civil society, and between present and future generations.

5. The present report elaborates further on how to promote closer convergence among the three pillars of sustainable development.

6. The Rio Principles[2] provide a systematic framework for international cooperation on sustainable development, including commitments to human welfare, national sovereignty, right to development, environmental protection, poverty eradication, protection of the vulnerable, and common but differentiated responsibilities, and sustainable consumption and production. These principles provide the foundation for subsequent agreements, including those to be reached at the United Nations Conference on Sustainable Development.

7. The challenges to sustainable development come from three sources. First, despite the progress made towards achieving the Millennium Development Goals, the goal of poverty eradication is still elusive. Second, the adverse impacts on nature and natural resources have reached alarming levels. Third, international commitment to affirming and implementing past decisions will be needed. Poverty eradication is associated with rapid economic growth and industrialization, which, in the absence of access to new technologies and financial resources, will require natural resources; and this can place stresses on an environment already heavily

[1] A/65/298.

[2] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex I.

stressed by the prior development and current consumption patterns of high-income countries. Thus, a shift towards sustainable consumption and production patterns, led by the high-income countries, must go hand-in-hand with sustainable development of low-income countries.

8. Nonetheless, analyses suggest that the momentum towards an unsustainable future can be reversed. This change of direction will require a combination of factors, including access to technology and finance by poor countries, development and deployment of advanced technologies, enhanced access to energy services, shifts in lifestyles and values, and consistent political commitment. It takes many decades to realign human activity with a healthy environment, to make poverty obsolete, and to ameliorate the deep fissures that divide people. This realignment requires thus a long-term political commitment.

9. Climate change is already a reality. It has begun to place stress on ecological systems, water resources, and food security, and has contributed to an increased frequency of natural disasters. Such stresses may persist, and may lead to the loss of lives and property. A planetary transition towards a humane, just and ecological future[3] will require sustainable economic growth through greening of the economy, increased investment in green infrastructure, strengthening of the social pillar and creation of greener jobs, and unprecedented levels of international cooperation.

10. A key element of this agenda is the enhanced access to sustainable, modern, affordable energy services by poor countries. Energy is critical not only for economic growth and industrial development, but also for each of the Millennium Development Goals, and for reducing the pressure on natural resources.

11. The core idea is not only to integrate and combine environment and development in a synergistic manner, but also to effectively mainstream sustainability considerations into economic and developmental decision-making, and indeed to ensure that all development actions are approached through the prism of sustainability. In return, investing in the environment, such as in protecting, restoring and replenishing the assets provided by nature, could act as an important driver for future economic prosperity.

12. Member States, United Nations system entities and other stakeholders have identified a number of priority sectors that the United Nations Conference on Sustainable Development should address and on which the Conference should ideally yield decisions and initiatives. Several of these are discussed in section III of the report.

III. Priority sectors and cross-cutting issues

Energy[4]

13. The year 2012 has been proclaimed the International Year of Sustainable Energy for All,[5] emphasizing the importance of energy access for all to sustainable development and poverty eradication, as well as of protection of the environment

[3] Paul Raskin, Tariq Banuri, Gilberto Gallopin, Pablo Gutman, Al Hammond, Robert Kates, Rob Swart, *Great Transition: The Promise and Lure of the Times Ahead*, a report of the Global Scenario Group, Stockholm Environment Institute (2002).

[4] See A/66/306.

[5] See resolution 65/151.

through the sustainable use of traditional energy resources, cleaner technologies and newer energy sources.[6]

14. Current energy systems are inadequate to meet the needs of the world's poor and are jeopardizing the achievement of the Millennium Development Goals. Worldwide, the "energy-poor" suffer the health consequences of inefficient combustion of solid fuels in inadequately ventilated buildings, as well as the economic consequences of insufficient power for productive income-generating activities and for other basic services such as health and education. Women and girls in the developing world are disproportionately affected in this regard.[7]

15. Despite two decades of climate change policies, thousands of programmes, initiatives, regulations, market-based instruments and international agreements, and the disbursement of hundreds of billions of dollars in subsidies, funds, research and research and development efforts, and development aid, the declared goal of establishing a renewable low-carbon energy system on a global scale remains elusive.

16. It is estimated that government support worldwide for both electricity from renewables and for biofuels will be $205 billion, or 0.17 per cent of global gross domestic product (GDP), by 2035. Between 2010 and 2035, 35 per cent will go to renewables-based electricity, while global biofuel use will increase from 1 million barrels per day today to 4.4 million barrels per day in 2035, with the United States, the European Union and Brazil expected to remain the largest producers and consumers of biofuels.[8]

17. The growth rates for the diffusion of renewable energy technologies since 2000 have been impressive but are still insufficient. In 2005, fossil fuels accounted for 85 per cent of the global primary energy mix, while low-carbon nuclear power accounted for 6 per cent, hydroelectricity for 3 per cent and biomass for 4 per cent. Modern renewables jointly accounted for less than 1 per cent.[9] Similarly, the renascence of nuclear power has barely made up for losses of older capacities that are increasingly being phased out.[9] The current trajectory is nowhere near attaining a realistic path towards complete decarbonization of the global energy system by 2050.

18. Simplistic solutions dominate present national and global debates on how to meet the energy technology innovation imperative. Technology optimists suggest "big push" policies to scale up available technologies. Others focus on market incentives and hope that the necessary technological transformation will come about by "getting prices right" through internalizing environmental externalities.

19. The United Nations Conference on Sustainable Development has the opportunity to bring all this together in a common effort to transform the global energy system over the coming decades, by (a) expanding access to clean energy; (b) enhancing industrial energy efficiency; and (c) promoting green industry as an

[6] See www.sustainableenergyforall.org/.

[7] "Energy for a Sustainable Future", the Secretary-General's Advisory Group on Energy and Climate Change, summary report and recommendations, 28 April 2010, New York.

[8] *World Energy Outlook 2010*, Organization for Economic Cooperation and Development/ International Energy Agency (2010).

[9] *World Economic and Social Survey 2011*, United Nations publication, Sales No. E.11.II.C.1 (2011).

integral component of the transition to a green economy in the context of sustainable development and poverty eradication. The Conference can be an opportunity to ask the global community to set very concrete targets conducive to this energy transformation.

20. Timescales for this transition to sustainable energy need to be realistic and feasible. By 2030, there is an opportunity for the world to be well on its way to a fundamental transformation of its energy system, allowing developing countries to leapfrog current systems and shift to cleaner, sustainable, affordable and reliable energy services.[7] The international community can also be asked to provide by 2030 universal access to modern energy services, thus widening access for the 2 to 3 billion people excluded from modern energy services to a basic minimum threshold of modern energy services for both consumption and productive uses. The Conference can also promote the use of renewable energy to be 30 per cent of all global energy use by 2030. This will play a central role in securing a more reliable and sustainable energy path. The Conference can also spearhead the reduction of global energy intensity[10] by 40 per cent by 2030. By 2050, it is feasible to transform the global energy system into an almost carbon-free one (see figure 1).[9]

21. Attaining these goals will require unprecedented and worldwide coordinated measures, including major shifts in regulatory regimes in almost every economy, vast incremental infrastructure investments (likely to be more than $1 trillion annually),[9] accelerated development and deployment of multiple new energy technologies, and a fundamental behavioural shift in energy consumption. Major shifts in human and institutional capacity and governance will also be required.

22. Globally, the replacement cost of the existing fossil fuel and nuclear power infrastructure is at least $15 trillion to $20 trillion. Clearly, it is unlikely that the world will decide overnight to write off $15 trillion to $20 trillion in infrastructure and replace it with a renewable energy system having an even higher price tag. At the same time, it should be noted that the long-term incentive to change the existing energy system should be powerful, too, particularly in view of the fact that oil importers spent about $2 trillion to buy crude oil in 2007.[9]

[10] Energy intensity is measured by the quantity of energy per unit of economic activity or output (GDP).

Figure 1
Renewable energy plans for the world

	MacKay (2008)			Rathi and others (forthcoming)
Renewable source	*Technical potential (EJ)*	*Technical potential per capita (GJ)*	*Comments and assumptions*	*Techno-economic potential for Global Energy Assessment scenarios by 2050*
Wind	189	27.4	Onshore and offshore. Estimate of Greenpeace and the European Wind Energy Association	170
Hydro	28.8	4.11	Estimate by the International Hydropower Association and the International Energy Agency	28
Tide	1.2 2.6	0.18 0.37		
Wave	3.9	0.57	10 per cent of raw wave power converted at 50 per cent efficiency	
Geothermal	63.1	9.14	Extrapolation of United States geothermal potential for the world	17
Biofuels	284	41	All of the world's arable or cropland (27 million km²) used for biofuels! Power density of 0.5 W/m², and losses of 33 per cent in processing and farming	117+28
Total non-solar	**571**	**83**	Sum of the above	**360**
Solar photovoltaics (PV)				1 650
Concentrating solar power (CSP)	-	-		990
Total solar: solar heaters, PV and CSP	**370 EJ**	**>54**	One billion people in Europe and North Africa could be sustained by country size solar power facilities in deserts near the Mediterranean; and half a billion in North America could be sustained by Arizona-size facilities in the deserts of the United States and Mexico	**2 640**

Note: Data converted and adjusted for the world population of 6.9 billion in 2010.
Source: *World Economic and Social Survey 2011* (2011).

23. Both the international community and governments need to make renewables cost-competitive with other energy sources and technologies, and to stimulate technological advances.

24. All countries have a role to play: the high-income countries can contribute by making this goal a development assistance priority and catalysing financing; the middle-income countries can contribute by sharing relevant expertise, experience and replicable good practices; and the low-income countries can help create the right local institutional, regulatory and policy environment for investments to be made, including by the private sector. Policymakers and business leaders must place much greater emphasis on transforming the performance of national and regional energy systems over the coming decades. The United Nations Conference on Sustainable Development would also be a good opportunity to find strategies and solutions, including the role of the public sector and international cooperation.

25. Developing countries in particular need to expand access to reliable and modern energy services if they are to reduce poverty and improve the health of their citizens, while at the same time increasing productivity, enhancing competitiveness and promoting economic growth.

26. Developed and developing countries alike need to build and strengthen their capacity to implement effective policies, market-based mechanisms, business models, investment tools and regulations with regard to energy use. Achieving this goal will require the international community to harmonize technical standards for key energy-consuming products and equipment, to accelerate the transfer of know-how and good practices, and to catalyse increased private capital flows into investments in energy efficiency. The successful adoption of these measures would reduce global energy intensity by about 2.5 per cent per year — approximately double the historic rate.[7]

27. In this context, energy is a strong amplifier of sustainable development and a necessary element of a transition to a green economy. This requires a long-term approach towards energy security. Better-focused and greater efforts to move to cleaner and renewable energy will be needed to ensure climate stabilization while allowing developing countries to satisfy their rapidly increasing demand for commercial energy, which is linked to their development aspirations. Global and national energy policy is also development policy and thus must demonstrate special consideration of the poor. Optimal policy packages depend strongly on a country's institutions, development stage, resource endowments and socio-political preferences, and will change over time.

28. Establishing an international initiative to develop road maps for innovative technologies and for cooperating on existing and new partnerships, including carbon capture and storage, and other advanced energy technologies, can be one way to develop, deploy and foster clean energy technologies, encouraging a wide range of policy instruments such as transparent regulatory frameworks, economic and fiscal incentives, and public/private partnerships to foster private sector investments in new technologies.

29. The transformation of energy systems could be uneven and, if poorly handled, could lead to a widening "energy gap" between advanced and least developed nations, and even to periodic energy security crises. But handled well, through a balanced framework of cooperation and competition, energy system transformation has the potential to be a source of sustainable wealth creation for the world's growing population while reducing the strain on its resources and climate.

Water

30. Water is essential for achieving sustainable development and the Millennium Development Goals. Properly managing water resources is an essential component of growth, social and economic development, poverty reduction and equity, and sustainable environmental services.

31. As there are many competing demands on water, investment in water infrastructure and better management of water are key to meet all needs, particularly in rural areas and to enhance agricultural productivity. As development proceeds, with the shift to commercial and industrial activities in urban areas, water has to be managed for energy and food production, transportation, flood control, and drinking water and sanitation, as well as for industrial and commercial activities.

32. These needs are not always recognized. Usually water is mostly talked about in the context of safe drinking water and sanitation. These are important issues as 2.6 billion people do not use improved sanitation, while 884 million people do not

use improved sources for drinking water.[11] It also needs to be recognized that there is an urgent need to address the inherent interrelationship between water and other important development-related sectors, like energy, food, and the environment.

33. Decision-making on water requires seeking synergies and selecting appropriate trade-offs. It also requires distinguishing between short-term "fire-fighting" — responding to the urgent issues of the day — and long-term strategic development. Developing multipurpose water schemes and reusing water wherever feasible can lessen the need for trade-offs by enabling the same volumes of scarce water to deliver multiple outcomes.

34. A new dialogue between developed countries and developing countries on water management and its role in sustainable development is urgently needed. Countries should work together to identify socio-economic priorities and to invest in and use water to power the engines of growth, so that instead of competing demands on water, they will become complementary.

35. The challenges are great, but the unsustainable management and inequitable access to water resources cannot continue because the risks of inaction are even greater and can jeopardize achievements in other sectors of sustainable development. Leaders inside and outside the water domain have critical, complementary roles. Leaders in the water domain can inform the processes outside this domain and manage water resources to achieve agreed socio-economic and environmental objectives. But leaders in government, the private sector and civil society determine the direction that actions will take. The international community can provide a platform where this integrated approach to water is recognized and commitments are undertaken in its support. The United Nations Conference on Sustainable Development can be such a platform.

Food security and sustainable agriculture[12]

36. From 2007 to 2009, a food price hike followed by the financial crisis and global economic recession pushed the number of hungry and undernourished people in the world to unprecedented levels, reaching a peak in 2009 of more than 1 billion. In the first half of 2010, world agricultural commodity markets appeared to enter calmer times, and the Food and Agriculture Organization of the United Nations (FAO) estimated that the number of undernourished would decline to about 925 million with falling food prices.

37. But food prices began to rise again from the later half of 2010. The FAO Food Price Index hit its all time high of 238 points in February 2011. It averaged 234 points in June, 39 per cent higher than in June 2010. The FAO Cereal Price Index averaged 259 points in June, 71 per cent higher than in June 2010.[13] According to the World Bank, without action to increase the supply of food, 10 million more people could fall below the $1.25 a day extreme poverty line in addition to the 44 million pushed into poverty by soaring food prices during 2010.[14]

[11] *Progress on Sanitation and Drinking-Water, 2010 Update*, World Health Organization/United Nations Children's Fund (2010).

[12] See A/66/277.

[13] See "World Food Situation: FAO Food Price Index", Food and Agriculture Organization of the United Nations. Available at www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en/.

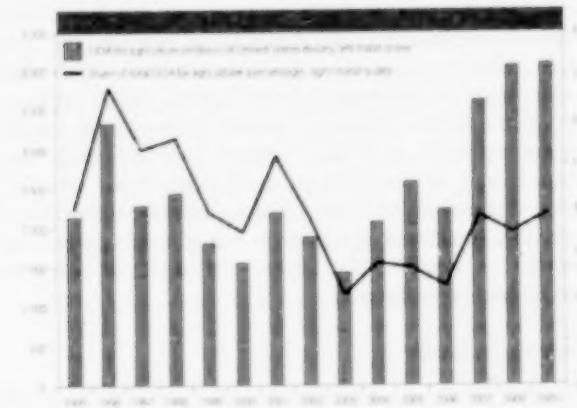
[14] See World Bank, "High and Volatile Food Prices Continue to Threaten the World's Poor", press release No. 2011/430/PREM (14 April 2011). Available at web.worldbank.org.

The 22 countries regarded as facing a "protracted food security crisis" are home to over 165 million undernourished people (about 20 per cent of the world's total population).[14]

38. This shows the importance of investment in agriculture, especially sustainable agriculture, as current agricultural technology, practices and land-use patterns cannot achieve an increase in food production between 70 and 100 per cent by 2050 to feed a growing population without further contributing to greenhouse gas emissions, water pollution and land degradation.[9]

39. However, the share of total official development assistance (ODA) allocated to agriculture fell from a peak of 18 per cent in 1978 to 4 per cent in 2009, with ODA earmarked for agriculture having decreased significantly in the 1990s (see figure 2).

Figure 2
Total volume and share of ODA allocated to agriculture, 1995-2009



Source: World Economic and Social Survey 2011 (2011).

40. One major consequence of unsustainable agriculture is increased land degradation in severity and extent, in many parts of the world, with about 40 per cent of the world's land surface degraded (25 per cent has been degraded over the past quarter-century alone) and with an estimated 1.5 billion people directly dependent on agriculture[9] (see figure 3). Land degradation has negative effects on climate, biodiversity, water ecosystems, landscape and other ecosystem services.

41. While agriculture contributes significantly to the problem of climate change, it is also vulnerable to its effects. Climate change impacts agriculture in many ways, with changes in temperature, precipitation and climatic variability affecting the timing and length of growing seasons and yields and thereby exacerbating land degradation and contributing to water scarcity (see figure 4).

Figure 3
Global environmental impacts of land degradation

Environmental component or process	*Bases of impact of land degradation*
Climate change	• Land-use change, deforestation in particular, is a critical factor in the global carbon cycle • Soil management changes can result in the sequestration of atmospheric carbon • Agriculture is a major source of methane (CH_4) and nitrous oxide (N_2O) emissions • Land surface change (for example, as regards albedo and roughness) plays an important role in regional and global climate change • Human activities accelerate the occurrence of sandstorms • Biomass burning contributes to climate change
Biodiversity	• Deforestation leads to loss of habitat and species • Land-use change and management, including fragmentation and burning, lead to loss of habitat and biodiversity • Non-point pollution from crop production damages aquatic habitats and biodiversity
Water resources	• Agricultural activities are a major source of water pollution • Land-use and cover change alters the global hydrologic cycle • Atmospheric deposition of soil dust damages coral reefs
Persistent organic pollutants (POPs)	• Soil contains a major pool of POPs • Biomass burning produces POPs

Source: *World Economic and Social Survey 2011* (2011).

Figure 4
Projections of climatic changes and corresponding impacts on agriculture

Projected change	*Likelihood of future trends based on projections for the twenty-first century*	*Projected impacts on agriculture*
Warmer and fewer cold days and nights; warmer and more frequent hot days and nights over most land areas	Virtually certain	Increased yields in colder environments; decreased yields in warmer environments
Warm spells/heatwaves: frequency increases over most land areas	Very likely	Reduced yields in warmer regions due to heat stress at key development stages; increased danger of wildfire
Heavy precipitation events: frequency increases over most areas	Very likely	Damage to crops; soil erosion, inability to cultivate land due to water-logging of soils
Area affected by drought increases	Likely	Land degradation; lower yields/crop damage and failure; increased livestock deaths; increased risk of wildfire
Intense tropical cyclone activity increases	Likely	Damage to crops; windthrow of trees
Increased incidence of extreme high sea level	Likely	Salinization of irrigation and well water

Source: Intergovernmental Panel on Climate Change 2007a, table 3.2., *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of IPCC.

42. The productivity of some lands has declined by 50 per cent owing to soil erosion and desertification. Globally, the annual loss of 75 billion tons of soil costs about $400 billion per year, or approximately $70 per person per year. Nutrient (nitrogen, phosphorus and potassium) depletion also has a severe global economic impact.

43. Deforestation can also exacerbate food insecurity, as forests provide food, inputs and services that support crop and livestock production.[9] This is why one of the most significant developments in the combating deforestation agenda since Agenda 21 has been the emergence of the reducing emissions from deforestation and forest degradation (REDD) concept. REDD seeks to address the drivers of deforestation and develop a greater appreciation of the crucial role forests play in climate change adaption and mitigation. However, its integration into the United Nations Framework Convention on Climate Change (UNFCCC) has proved complex, taking a two-year process of deliberations for the Conference of the Parties to adopt a decision on the issue.[15]

[15] See http://unfccc.int/methods_science/redd/items/4547.php.

44. In this regard, despite the creation of a specific United Nations REDD initiative, launched in 2008 to assist developing countries prepare and implement REDD-plus strategies, the funding, organization and implementation of a fully operational international REDD mechanism continues to be negotiated under the UNFCCC. Nonetheless, REDD-plus programmes have begun to have significant impacts in several countries. In addition to the committed $1 billion contribution to a joint fund, a total of $3.5 billion for REDD for the period 2010-2012 has been pledged.[16]

45. There is often a strong association between the distribution of poor people reliant on agriculture and fragile environments. Poor people are likely to be farming steeper land and drier, less fertile soils and in more remote areas. Natural resource degradation may also exacerbate gender inequalities by increasing the time required for fulfilment of female responsibilities such as food production, fuelwood collection, and soil and water conservation.

46. Agricultural production systems can further adversely affect human health. Water pollution from inorganic fertilizers and livestock waste undermines the safety of drinking water and aquatic food. Pesticides negatively affect the health of farm workers. Transportation of agricultural products has also promoted the cross-border spread of pests and diseases. In addition, desertification-induced dust storms can cause respiratory disorders.

47. All this shows that combating hunger and malnutrition in a sustainable manner and guarding against high and volatile food prices will require a radically different approach that addresses the structural constraints on food production within a wider framework of sustainable natural resource management. Synergies need to be identified among the different sectors to implement important "win-win" options through better resource management and an enabling institutional environment. Only with such as integrated approach can land degradation and deforestation be reduced and water used sustainably while, at the same time, productivity be increased.

48. The world now needs a truly green revolution in agriculture; one that is conducive to the kind of technological innovation that aims to radically improve the productivity of small farm holdings through environmentally sustainable natural resource management embedded in broader developmental agricultural support measures.

49. The Group of Twenty (G-20) has already proposed an action plan on food price volatility and agriculture, which will be submitted to its leaders at its summit in November 2011. Its main objectives will be to (a) improve agricultural production and productivity both in the short- and long-term, in order to respond to a growing demand for agricultural commodities; (b) increase market information and transparency in order to better anchor expectations from governments and economic operators; (c) strengthen international policy coordination in order to enhance confidence in international markets and to prevent and respond to food market crises more efficiently; (d) improve and develop risk management tools for governments, firms and farmers in order to build capacity to manage and mitigate the risks associated with food price volatility, in particular in the poorest countries;

[16] Study on assessment of progress on Agenda 21 and Rio Principles, draft report, United Nations Department of Economic and Social Affairs.

(e) improve the functioning of agricultural commodities' derivatives markets (this objective is being pursued through the work of Finance Ministers and Central Bank Governors).[17]

50. But the international community has much more to contribute to a global agenda for food security and sustainable development. The United Nations Conference on Sustainable Development can be the right framework to renew commitments, such as the one regarding the financial pledges made in the aftermath of the food crisis of 2007-2008 to eradicate hunger.

51. Other proposals deserving serious consideration include (a) a reform of agricultural subsidies in Organization for Economic Cooperation and Development (OECD) countries, including subsidies to biofuels, and support for new-generation biofuels to reduce the diversion of agricultural land use from food production; (b) increased international investment in agricultural research and development for food security, with private sector participation; (c) new financing mechanisms to expand payments to small farm holders in developing countries for environmental services that help protect natural resources, preserve biodiversity and increase carbon sequestration in agriculture and forestry; (d) the elimination of non-tariff barriers to food trade, which prevent the expansion of markets, to include small-scale producers in developing countries; (e) the adoption of green footprint standards; (f) effective regulation of commodity futures markets to avert speculation with food prices; (g) the prevention of export bans on food crops and panic buying in response to weather-related catastrophes, in order to reduce large price spikes; and (h) the establishment of mechanisms to protect vulnerable populations utilizing safety nets and food assistance, such as building a global grain reserve, in order to reduce the impact of increasing food prices.[17]

Urbanization

52. By 2030 all developing regions, including Asia and Africa, will have more people living in urban than rural areas with the expectations of 69 per cent of population living in cities by 2050[18] (see figure 5).

[17] See Ministerial Declaration, Action Plan on food price volatility and agriculture, Meeting of G-20 Agriculture Ministers, Paris, 22-23 June 2011. Available at www.uncsd2012.org/rio20/content/documents/110623_G20_AgMinisters_Action_Plan_Agriculture_Food_Price_Volatility.pdf.

[18] United Nations Human Settlements Programme, *State of the World's Cities 2010/2011 — Cities for All: Bridging the Urban Divide* (2010).

Figure 5
Selected global city-regions, urban corridors and mega-regions

Source: *State of the World's Cities 2010/2011*, UN-Habitat, 2010.

53. This trend has both its advantages and disadvantages. Cities offer human beings the potential to share urban spaces, participate in public and private events and exercise both duties and rights. These opportunities in turn make it possible to cultivate societal values and define modes of governance and other rules that enable human beings to produce goods, trade with others and get access to well-being. On the other hand, the urban divide can be so wide that the rich live in well-serviced neighbourhoods, gated communities and well-built formal settlements, whereas the poor are confined to inner-city or peri-urban informal settlements and slums.

54. This physical divide takes the form of social, cultural and economic exclusion. The urban divide is the face of injustice and a symptom of systemic dysfunction. Cities need to be vehicles for social change: places where new values, beliefs and ideas can forge a different growth paradigm that promotes rights and opportunities for all members of society. The concept of an "inclusive city", or "a city for all", encompasses the social and economic benefits of greater equality and environment protection, promoting positive outcomes for each and every individual in society.

55. For this to be achieved, local city authorities, but also broadly authorities at the national level, need to address key challenges of today's urbanization, by promoting integrated land-use planning, expanding access to basic services, encouraging sustainable buildings and implementing sustainable transport. They need to anticipate expansion with sound planning policies and related actions that control the speculation associated with urban sprawl. Cities must also grant rights to the urban poor, along with affordable serviced land and security of tenure, if further peripherization is to be avoided.

56. This also means reduction of people living in slums. Over the past 10 years, the share of the urban population living in slums in the developing world has declined significantly: from 39 per cent in 2000 to 33 per cent in 2010. On a global scale, this is cause for optimism. However, in absolute terms, the number of slum-dwellers in the developing world is actually growing and is expected to rise in the near future. Informal settlements in the developing world are growing, and the number of urban residents living in slum conditions is now estimated at some 828 million, compared to 657 million in 1990 and 767 million in 2000.[19]

57. Policy reforms to prevent future slum growth through equitable planning and adequate economic policies are necessary. The spatial divide of slums, which are often physically isolated and disconnected from the main urban fabric in developing country cities, does not just reflect income inequalities among households; it is also a by-product of inefficient land and housing markets, ineffective financial mechanisms and poor urban planning.

58. It is therefore necessary that laws and regulations benefit the urban poor, especially women. Empowering the poor and lifting them out of poverty is essential for taking advantage of the urban dwelling.

59. The United Nations Conference on Sustainable Development can be a good forum to pave the way to this urban inclusiveness, especially by considering the following strategic steps: assessing the past and measuring progress (understanding the specific factors that contributed to the current situation and assessing future policies and practices to monitor progress and evaluate performance); making institutions stronger and more effective; building new linkages and alliances among the various tiers of government (combining policies and resources among public and private sectors and civil society); demonstrating a sustained vision to promote inclusiveness (i.e., a workable plan with clearly defined funding sources and accounting mechanisms); and ensuring the redistribution of opportunities (by promoting cities as the primary locus for innovation, industrial and technological progress, entrepreneurship and creativity).[19]

60. This strategic framework for inclusive and sustainable cities can be enhanced by considering the following policy catalysts: improve quality of life, especially for the urban poor by creating conditions for improved access to safe and healthy shelter, secure tenure, basic services and social amenities such as health and education; invest in human capital formation which is a condition for socio-economic development and a more equitable distribution of the urban advantage; foster sustained economic opportunities that can stimulate sustained economic growth for poor and underprivileged populations through promotion of labour-intensive projects; enhance political inclusion by engaging citizens in decision-making; promote cultural inclusion such as social capital, tradition, symbols, meaning, sense of belonging and pride of place, on top of use of local cultural resources by local communities.[19]

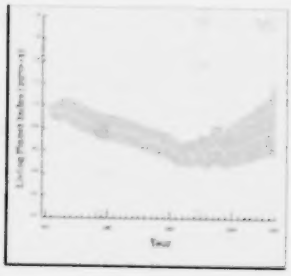
[19] See *The Millennium Development Goals Report 2010*, United Nations publication, Sales No. E.10.I.7 (2010).

Biodiversity[20]

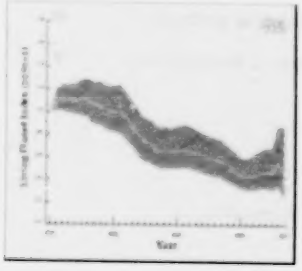
61. Biodiversity, if managed sustainably, offers opportunities for poverty eradication, human well-being and livelihood, and sociocultural integrity of people. However, in the 20 years since the Rio summit, biological diversity has continued to decline in three main areas: ecosystems, genes and species (see figure 6). The world has missed the 2010 target to achieve a significant reduction of the current rate of biodiversity loss at the global, regional and national levels. Nearly 17,000 species of plants and animals are known to be threatened with extinction. Based on current trends, the loss of species will continue throughout this century, with increasing risk of dramatic shifts in ecosystems and erosion of benefits for society. Billions of people, including many of the poorest, rely directly on diverse species of plants and animals for their livelihoods and often for their survival.

Figure 6

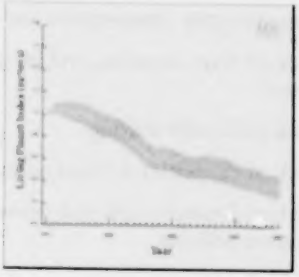
Trends in biodiversity since 1970 in sub-Saharan Africa



Trends in biodiversity since 1970 in Latin America



Trends in biodiversity since 1970 in Indo-Pacific



Source: Study on assessment of progress on Agenda 21 and Rio Principles, draft report, United Nations Department of Economic and Social Affairs.

62. Several obstacles prevent the full implementation of the objectives of the Convention on Biological Diversity, including limited capacity in both developed and developing countries of financial, human and technical issues; the absence of, or difficulties in accessing, scientific information; limited awareness of biodiversity issues among the general public and decision makers; limited biodiversity mainstreaming; fragmented decision-making and limited communication between different ministries or sectors; and the absence of economic valuation of biodiversity (see figure 7).

[20] See A/66/291.

Figure 7

Issues	*ALL*	*IN*	*ET*	*OD*	*LD*	*SI*
Lack of financial, human and technical resources	●	●	●	●	●	●
Lack of public education and awareness at all levels	●	●	●	●	●	
Lack of economic incentive measures	●		●	●	●	●
Loss of biodiversity, goods and services not properly understood, documented	●		●	●	●	●
Lack of knowledge and practice on ecosystem-based management	●		●	●		●
Inadequate capacity to act, caused by institutional weaknesses	●			●	●	●
Lack of effective partnerships	●		●		●	●
Lack of horizontal cooperation among stakeholders	●		●		●	
Unsustainable consumption and production patterns	●		●		●	
Lack of mainstreaming and integration of biodiversity issues	●		●			
Lack of benefit-sharing				●	●	●
Lack of capacities for local communities				●	●	●
Lack of precautionary and proactive measures, reactive policies			●	●		
Lack of synergies at the national and international levels					●	●
Lack of political will and support to implement the CBD			●			
Limited public participation and stakeholder involvement			●			
Lack of transfer of technology and expertise					●	
Lack of adequate scientific research capacities					●	
Loss of traditional knowledge						●
Existing scientific and traditional knowledge not fully utilized						●
Lack of appropriate policies and laws						●
Weak law enforcement capacity						●

Note: column headings: ALL = all reporting countries; IN = industrialized countries; ET = countries with economies in transition; OD = other developing countries (i.e., developing countries excluding least developed countries and small island developing States); LD = least developed countries; SI = small island developing States.

Source: Study on assessment of progress on Agenda 21 and Rio Principles, draft report, United Nations, Department of Economic and Social Affairs (2011).

63. If these challenges are not addressed, there is a high risk of dramatic biodiversity loss and accompanying degradation of a broad range of ecosystem services, especially if ecosystems are pushed beyond certain thresholds or tipping points. Well-targeted policies focusing on critical areas, species and ecosystem services are essential to avoid the most dangerous impacts on people and societies. Preventing further human-induced biodiversity loss for the near-term future will be extremely challenging, but biodiversity loss may be halted and, in some aspects, reversed in the longer term, if urgent, concerted and effective action is initiated now in support of an agreed long-term vision.

64. The most important challenge facing biodiversity is shortage of funds. Innovative financial mechanisms, which would leverage additional funds from the private sector, have been proposed such as payments for ecosystem services based on a beneficiary pays system; a biodiversity offset mechanism based on the polluter pays principle; environmental fiscal reform using taxation policies; the creation of markets for green products; and international financial mechanisms such as global lottery, global bonds and trust funds, public guarantees and insurance mechanisms, equity investments, green development mechanisms and a currency transaction tax.[16] However, these measures are not readily accepted by a number of developing countries, which fear additional costs and a decrease in development assistance.

65. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity,[21] which was adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting on 29 October 2010 in Nagoya, Japan, is an international agreement that aims at sharing in a fair and equitable way the benefits arising from the utilization of genetic resources. The agreement provides for the appropriate access to genetic resources and appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components. This might present yet another mechanism to safeguard biodiversity. Since it opened for signature in February 2011, it has been signed by 38 parties.[22] The agreement presents, however, another challenge as it touches on international regimes, such as the trade-related intellectual property rights regime.

66. Effective action to address biodiversity loss depends on addressing the underlying causes or indirect drivers of that decline. This requires strategic planning and greater efficiency in the use of land, energy, fresh water and materials to meet growing demand and to reconcile development with conservation of biodiversity; use of market incentives; avoidance of perverse subsidies to minimize unsustainable resource use and wasteful consumption; ensuring the benefits arising from use of and access to genetic resources and associated traditional knowledge — for example, through the development of drugs and cosmetics — are equitably shared with the countries and cultures from which they are obtained; communication, education and awareness-raising to ensure that everyone understands the value of biodiversity and what steps can be taken to protect it, including through changes in personal consumption and behaviour.[23]

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[21] See UNEP/CBD/COP/10/27, annex, decision X/1.

[22] At the time of the submission of this report.

[23] Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 3*, Montreal (2010). Available at www.cbd.int/doc/publications/gbo/gbo3-final-en.pdf.

67. The United Nations Conference on Sustainable Development can ensure that better decisions for biodiversity are made at all levels and in all sectors, in particular the major economic sectors. Governments have a key enabling role to play in this regard. National programmes or legislation can be crucial in creating a favourable environment to support effective "bottom-up" initiatives led by communities, local authorities, or businesses. This also includes empowering indigenous peoples and local communities to take responsibility for biodiversity management and decision-making; and developing systems to ensure that the benefits arising from access to genetic resources are equitably shared.

Oceans

68. Oceans, comprising 72 per cent of the Earth's surface, constitute a major part of the planet that supports life, drive the climate and hydrological cycles and provide vital resources. Oceans, seas islands and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical to global food security and sustainable economic prosperity and the well-being of many national economies, particularly in developing countries.[24] Globally, the fish sector provides income and livelihood for millions of people. In 2008 fish and aquatic plant sales amounted to $106 billion, and the fisheries industry provided livelihoods for about 540 million people, or 8 per cent of the world population.[25] A focus on ensuring healthy and productive oceans is a vital component for achieving sustainable development goals, including those related to promoting a green economy. However, the progress has been slow.

69. Under the aegis of the United Nations Convention on the Law of the Sea, the implementation of oceans-related decisions include the establishment of the Agreement relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea to advise the General Assembly. The General Assembly has also established a regular process for global reporting and assessment of the state of the marine environment. Port States' measures to prevent, deter and eliminate illegal, unreported and unregulated fishing are overseen by FAO and the International Convention for the Control and Management of Ships Ballast Water and Sediments is under the auspices of the International Maritime Organization. Furthermore, regional fisheries management organizations have been set up to deal with region-specific challenges. .

70. Despite these efforts, the World Summit on Sustainable Development target of restoring fish stocks to their maximum sustainable yields by 2015 are likely to be unmet, as are other targets, including the reversal of biodiversity loss in the oceans and the elimination of destructive fishing practices. The establishment of marine protected areas, another decision taken at the World Summit on Sustainable Development, is taking place at a slow pace. The United Nations Conference on Sustainable Development represents an opportunity to take action to speed up

[24] *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex, para. 30.

[25] Food and Agriculture Organization of the United Nations, *The State of World Fisheries and Aquaculture 2010*, part 1, p. 7.

implementation and take action on newly emerging threats such as ocean acidification, ocean noise and plastics, microplastics and marine debris.

IV. Institutions and governance

71. Governance today is, on the one hand, more complex and, on the other, more inclusive. It is more complex because State actors are not the only ones, and it is more inclusive because for governance to be democratic and to be considered politically legitimate[26] it needs to incorporate non-State actors, notably business, industry and civil society at large.

72. Attention to legitimacy arises because of a perceived need to increase the authority necessary to promote sustainable development. To improve institutional legitimacy, mechanisms and processes are needed to create common and coherent expectations across relevant stakeholders and communities that may have very different conceptions of legitimate governance or sustainable development. For example, countries at different levels of development or with different political cultures may view trade-offs differently between universal participation and efficiency in decision-making, or have different understandings of the appropriate role of States and markets in development. Similarly, market actors (firms, business associations, investors) may stress pragmatic and performance legitimacy criteria, whereas social and environmental groups may judge legitimacy on the grounds of environmental and social integrity and prioritize procedural legitimacy and accountability to wider communities. Meeting legitimacy demands will require ways to encourage bridging across these potentially different understandings.[27]

73. Institutions and governance need to perform a normative function, a technical and analytical function, an operational function and a role in monitoring implementation. Institutions also need to reflect the integration of the three pillars of sustainable development.

74. So far little has been done in the integration area. The enabling framework for the integration of all three pillars of sustainable development has been weak at all levels: international, regional and national and even subnational and local. In a number of deliberations, both Governments and other stakeholders blame the fragmentation of institutions. However, institutions are a result of functions they have been asked to perform. Sustainable development cannot be an afterthought of overall development, but must be mainstreamed into development. The institutional framework needs to reflect this integration from the start.

75. Coming to institutions, they cover a spectrum of formal and less formal bodies, organizations, networks and arrangements that are involved in policymaking or implementation activities. Globally, the institutional framework has witnessed a dramatic growth in the number of institutions and agreements, with more than 500 multilateral environmental agreements currently in existence. Thus the reach of

[26] Political legitimacy can be defined as the acceptance and justification of shared rule by a community, Steven Bernstein, "Legitimacy in Global Environmental Governance", *Journal of International Law and International Relations*, vol. 1 (1-2) (2005).

[27] Steven Bernstein, "Legitimacy in intergovernmental and non-state global governance", *Review of International Political Economy* 18 (February 2011).

sustainable development governance has greatly expanded, but, at the same time, it is fragmented and lacks coherence and coordination.

76. Many arrangements have been created with only limited governmental involvement.[28] These include the International Union for the Conservation of Nature, a global network that includes Governments and many non-governmental actors; the United Nations Global Compact, which has emerged as a formal link for the United Nations system to engage with the private sector, is based on the commitment to eight core principles. There has also been considerable innovation in the development of standards and codes by non-governmental actors, with varying degrees of involvement by Governments and international institutions. A range of voluntary initiatives seeks to broaden the adoption of key principles, such as the Equator Principles on financing, the Global Reporting Initiative, which aims to lift the bar for corporate reporting on sustainability, and the International Organization for Standardization process, most recently addressing corporate social responsibility.

77. In addition, establishing strong networks and exchange of information among all actors and stakeholders, as well as involving them in decision-making processes, could be the right track not only to keep focus on the integration of the three pillars of sustainable development, but also to ensure implementation, review and monitoring at all levels.

78. The United Nations Conference on Sustainable Development can look at different options and might want to decide how best to enable structures and institutions to work in a more synergistic way in order to deliver on international commitments, but also to help efforts at the national level.

79. At the international level, it has been underlined that the institutional framework needs to be supportive of the integration of the three pillars of sustainable development, and should avoid duplication and strengthen coherence and synergies,[29] including among normative, technical and analytical, and operational work. The United Nations needs to have a strong intergovernmental body for sustainable development that can promote integration of the three pillars, but also deal with new emerging issues, and monitor and review progress in implementation.

80. A number of options have been presented for strengthening the institutional framework for sustainable development, including those of the Helsinki-Nairobi Outcome.[30] Some propose new structures, but the majority seem to be in favour of strengthening the existing structures or elevating them to a higher level. Thus there is discussion of the merits of creating a new world environment organization, changing the Economic and Social Council into a Sustainable Development Council or creating a forum within the Economic and Social Council that would deal with sustainable development. There are also proposals to elevate the Commission on

[28] See A/CONF.216/PC/7.

[29] See Co-Chairs' summaries of the First and Second Preparatory Committee meetings and the first intersessional meeting of the United Nations Conference on Sustainable Development preparatory process. Available at www.uncsd2012.org/rio20/index.php?menu=44.

[30] The Helsinki-Nairobi Outcome proposes five options to be examined: enhancing UNEP; establishing a new umbrella organization for sustainable development; establishing a specialized agency such as a world environment organization; reforming the United Nations Economic and Social Council and the United Nations Commission on Sustainable Development; and enhancing institutional reforms and streamlining existing structures.

Sustainable Development to the Sustainable Development Council as a subsidiary body of the General Assembly.

81. To balance the three pillars and align the environmental pillar with the others, there have been proposals to strengthen UNEP. Options discussed have explored elevating the United Nations Environment Programme to specialized agency status, creating a World Environment Organization or simply revising the mandate of United Nations Environment Programme within its current structure.

82. Better coherence and coordination within the United Nations system is proposed to be enhanced by creating an inter-agency mechanism for sustainable development. With the present arrangements[31] there is an apparent disconnect between the bodies making normative decisions and the bodies delivering on normative commitments made at the global level. Those currently responsible for implementation feel only weak ownership of the normative decisions unless they are incorporated into mandates from their own governing bodies.

83. At the national level, one response to the integration challenge has been to create new institutions, such as national councils, in many cases with disappointing results. An arguably more effective alternative has been to integrate economic, environmental and social goals within the mandate of existing institutions. Longer-term budgeting and sound regulatory instruments can be important tools for integration.

84. At one level, integration can refer to the inclusion of the dimensions of sustainable development in the formulation of legal frameworks, the definition of property rights and the organization of government. At another level, integration refers to the process of day-to-day implementation: that is, how policies, management decisions, instruments and interventions are deployed. Integrated implementation is facilitated by factors such as the presence of the requisite capacity in government and civil society; compatible objectives; the existence of supportive legal and institutional frameworks; and easy access to data and information for decision-making. At the national level, horizontal integration across sectoral institutions and between different levels of government assumes great importance.[28]

85. Another important element at the regional and national levels is improving analysis, assessment and scientific research, as well as monitoring and accountability. In this regard, there is a role not only for international institutions, which, can help in monitoring and accountability,[32] but also for regional and national institutions, which, with their presence on the ground, can support national and local analysis, data gathering and assessment and build national and local capacity for analysis, establishment and enforcement of regulatory and incentive frameworks.

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[31] There is the Chief Executives Board and the Environment Management Group, in relation to the environment. Several thematic inter-agency mechanisms have been established, including UN-Energy, UN-Oceans and UN-Water, with the objective of fostering cooperation and information-sharing among United Nations entities. The United Nations Development Group assumes a role in relation to development activities on the ground, operationalizing normative decisions.

[32] One suggestion made is to introduce a universal or voluntary review mechanism as one of the core functions of a reformed Commission on Sustainable Development.

86. It must be recognized that, at the national level, considerable progress has been achieved in strengthening institutional mechanisms dealing with policy formulation, coordination, implementation and review. Many countries have put in place national sustainable development strategies and related instruments, but these are seldom the most important reference documents for economics ministries and donors. A central challenge is to ensure that such strategies have an impact on policymaking and implementation. Various mechanisms can be used to monitor the progress and implementation of national sustainable development strategies, including internal reviews, external auditing, parliamentary and budgetary reviews and indicator-based monitoring.[32]

87. The United Nations Conference on Sustainable Development can pave the way to better connect international, regional and national levels in order to strengthen implementation, as well as the monitoring of progress.

88. Effective public participation aids the integration of the three pillars in policy formulation and implementation. Policy formulation and implementation are more than a wise allocation of resources and good stewardship; the process matters. Ignoring social marginalization, vulnerability and the uneven distribution of resources frays the trust needed for collective action. Giving greater voice to the poor and marginalized groups in decision-making is thus a high priority. Providing better access by the poor to information can be a valuable means of empowerment.

89. More can be done to build on progress made to promote transparency and accountability through access to information and stakeholder involvement in decision-making. In this regard, the participation of major groups in the work of the Commission on Sustainable Development is an important feature and needs to be further enhanced in any future arrangements. In recent years, close to 1,000 representatives of 9 major groups have pre-registered for sessions of the Commission on Sustainable Development, and several hundred participate actively in the process. Accelerating implementation at the country level, however, requires, in addition to current efforts, engaging with many international intergovernmental and non-governmental organizations that are managing large-scale implementation of sustainable development projects but are not currently represented at Commission sessions. Thus, broadening the base of participation by major groups in the Commission process is important.[33] Major groups have also been very active in the preparations for the United Nations Conference on Sustainable Development.[34]

90. Partnerships are another important element of governance arrangements and, since the World Summit on Sustainable Development, the Commission on Sustainable Development has played an important role in facilitating partnerships among Governments, major groups and other national and international institutions with the objective to implement decisions of the Commission on the ground. This experience needs to be taken to the next stage, and the Conference might want to look into several options that are being floated, including dedicated partnerships (or partnerships of partnerships) for each set of policy decisions.

[33] See A/CONF.216/PC/2.

[34] See site of major groups at the United Nations Conference on Sustainable Development secretariat website for the Conference at www.uncsd2012.org/rio20/index.php?menu=35.

V. Actions in international cooperation and means of implementation

91. Sustainable development is a compact between developed and developing countries, between State and non-State actors, between rich and poor, and between generations, and it presupposes international cooperation. Without solidarity and without building equity, there cannot be prosperity. Globalization has shown that the world has become so interconnected that no single country or region can feel they can be immune from what is happening in the rest of the world. It is therefore in the interest of all to build international cooperation.

92. It has been stated repeatedly that Governments have a primary responsibility for their citizens, but Governments in developing, and especially in least developed countries, need help even though they remain in the driver's seat. They need capacity-building, technology transfer and means of implementation, if they are to achieve sustainable development, for which both economic and social transformation are necessary, together with environment protection.

93. However, it cannot be forgotten that the international landscape brings transformative change. One of the most visible outcomes of this transformation is the rise in the number of dynamic emerging-market countries at the helm of the global economy. It is likely that by 2025 emerging economies will be major contributors to global growth, alongside the advanced economies. The international monetary system is likely to cease being dominated by a single currency. Emerging-market countries, where three fourths of official foreign exchange reserves are currently held and whose sovereign wealth funds and other pools of capital are increasingly important sources of international investment, will become key players in financial markets. In short, a new world order with a more diffuse distribution of economic power is emerging, thus the shift towards multipolarity.[35]

94. In a world of progressively greater multipolar economic growth and more financial centres, policymakers will need to equip themselves with the tools and the capabilities to effectively capitalize on opportunities, while simultaneously safeguarding their economies against the risks that remain stubbornly high as the global economy struggles to find a stable footing.

95. This is the reason why it is so important for developing countries to have sufficient means of implementation, on one hand, and a secure and enabling environment with enough policy space, on the other, to be able to build viable economies, social justice and equity, and all within care systems of the Earth, while building resilience to all kind of shocks, including economic, social and natural shocks.

96. That is why so many advocate making the economy greener. But the economy does not just need to be the right colour. It needs to take the right shape. It should slash global carbon emissions, and it should also go further to guard natural assets such as fisheries and forests. It should create "green jobs" for a rising population of new workers and encourage innovative business models that empower poor producers, which means improving social equity and lifting poor out of poverty.

[35] World Bank, *Global Development Horizons 2011 — Multipolarity: The New Global Economy* (2011).

97. For this to happen, access to energy, as discussed above, and technology transfer are the most important preconditions. This is, of course, connected with ODA, its disbursement as well as its efficient use, lifting the debt burden and increasing technology transfer along the lines of the Bali Strategic Plan for Technology Support and Capacity-building,[36] as well as better access to markets and tariff reductions by developing countries.

98. Chapter 33 of Agenda 21 is about financial resources and mechanisms. The implementation cost of Agenda 21 in developing countries was estimated at $600 billion each year, of which $125 billion was to come from developed nations. The table below evaluates the state of implementation of the primary commitments of chapter 33 as of 2010, according to some basic progress indicators.

Table

Financial mechanism	*Commitment per chapter 33*	*Progress indicators*	*Implementation*
1. Official development assistance (ODA)	Reaffirmation of 0.7% ODA/GNP	OECD ODA levels	ODA decrease 1992 to 2000, now increasing
2. International development association (IDA)	Propose replenishment for 1992	International development association replenishment amounts	Funds increasing: more donor countries and higher donor amounts
3. Global Environmental Facility (GEF)	Restructure to more transparent structure and Agenda 21 focus	GEF replenishment amounts	Funds increasing and managing funds for more international agreements
4. Bilateral aid	Increase support	Bilateral donor commitments (seen in OECD Donor Country Aid Statistics)	Follows same trend as ODA, decreases until 2000, now increasing
5. Debt relief	Support 1991 Paris Club agreement, create measures	Reductions in debt burden; debt relief initiatives	1991 passed, high relief for Iraq and Nigeria recently, currently dipping
6. Multilateral development banks	Increase support	Lending amounts from the World Bank, IMF and other regional banks	General lending increases (based on need), large recent increase in response to financial crisis
7. Foreign direct investment	Increase support	FDI levels	Increasing but volatile resource for individual countries
8. Innovative financing (i.e., incentives, tradable permits, military spending)	Explore innovate financing options	Finance addressed through innovate sources	Innovative schemes further developed in recent conferences, especially in response to global financial crisis

Source: Study on assessment of progress on Agenda 21 and Rio Principles, draft report, United Nations Department of Economic and Social Affairs (forthcoming).

Abbreviations: IDA, International Development Association; FDI, foreign direct investment.

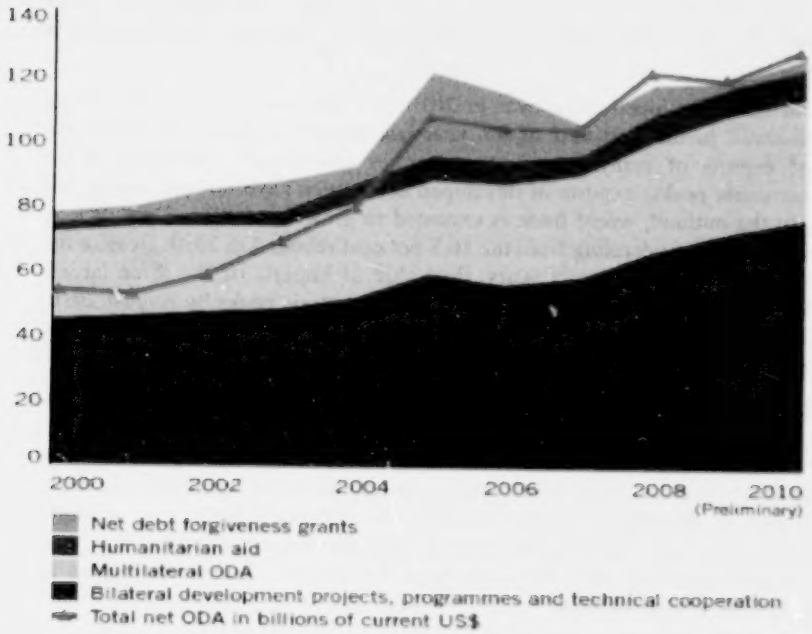
[36] See UNEP/GC.23/6/Add.1.

99. Chapter 33 also reaffirmed the ODA target of 0.7 per cent GNP given annually per developed nation, but deceleration of global economic growth in mid-2010 weakened the policy response and it is expected to be much less supportive in the near term, especially as widening fiscal deficits and rising public debt have undermined support for further fiscal stimuli. Many Governments, particularly those in developed countries, are already shifting towards fiscal austerity. This will also adversely affect global economic growth during 2011 and 2012.[37] In 2010, net aid disbursements amounted to $128.7 billion, equivalent to 0.32 per cent of developed countries' combined national income. This was the highest level of real aid ever recorded and an increase of 6.5 per cent in real terms over 2009. Excluding debt relief and humanitarian aid, bilateral aid for development programmes and projects rose by 5.9 per cent in real terms, as donors continued to scale up their core development projects and programmes. Most of the rise was in new lending (which grew by 13.2 per cent), but grants also increased (by 6.8 per cent)[38] (see figure 8).

Figure 8

Official development assistance (ODA) from developed countries, 2000-2010

(Billions of constant 2009 US$ and current US$)



Source: *Millennium Development Goal Report 2011*.

[37] *World Economic Situation and Prospects 2011*, United Nations publication, Sales No. E.77.II.C.2.

[38] *The Millennium Development Goal Report 2011*, United Nations (2011).

100. In 2010, Denmark, Luxembourg, the Netherlands, Norway and Sweden continued to exceed the United Nations target for ODA of 0.7 per cent of their gross national income (GNI). The largest donors by volume were the United States, followed by the United Kingdom, France, Germany and Japan. The largest increases in ODA in real terms between 2009 and 2010 were made by Australia, Belgium, Canada, Japan, Portugal, the Republic of Korea and the United Kingdom. Looking ahead, a recent OECD survey shows that most donors plan to increase aid over the coming three years, though at a sharply reduced pace. Aid will grow at 2 per cent a year between 2011 and 2013, compared to an average of 8 per cent a year over the past three years.[35]

101. A country's external debt burden affects its creditworthiness and vulnerability to economic shocks. Better debt management, the expansion of trade and, particularly for the poorest countries, substantial debt relief have reduced the burden of debt service. Between 2000 and 2008, the average ratio of public debt service to exports for developing regions declined from 12.5 per cent to 3.4 per cent. In 2009, owing to the global economic crisis, export earnings of developing countries declined by 21 per cent, while total public debt service remained at about the same level as in 2008. As a consequence, the ratio of public debt service to exports increased for all developing regions except Southern Asia, Western Asia and Oceania, with the overall average rising to 3.6 per cent. The impact was most pronounced for the small island developing States and the least developed countries.[36]

102. World trade continued to recover in 2010, but the momentum of the strong growth observed in the first half of the year has started to peter out. While the volume of exports of many emerging economies has already recovered to, or beyond, pre-crisis peaks, exports of developed economies have not yet seen a full recovery. In the outlook, world trade is expected to grow by about 6.5 per cent in both 2011 and 2012, moderating from the 10.5 per cent rebound in 2010. Despite the gradual recovery of the past two years, the value of imports of the three largest developed economies was still significantly below pre-crisis peaks by August 2010. Meanwhile, export recovery in these economies is mirrored in the fast growth of imports by countries in East Asia and Latin America.[37]

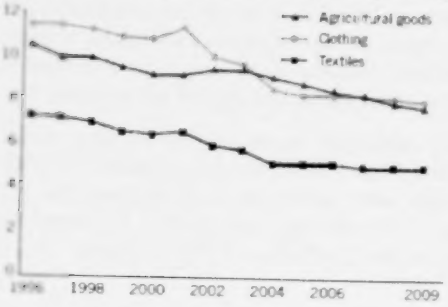
103. Despite fears of renewed protectionism at the beginning of the economic crisis in 2008, the strong international governance that emerged from the G-20 summit and other multilateral initiatives averted a return to restrictive trade practices. The vast majority of exports from developing countries are now imported free from custom duties in developed country markets. Recent years have seen a slight increase in the proportion of duty-free imports from developing countries other than least developed countries, with the proportions for the two groups converging at about 80 per cent of their exports.[38]

104. Thanks to the general reduction of tariffs in developed markets, more and more products are now routinely imported duty free under the World Trade Organization's most favoured nation treatment. However, when most favoured nation treatment is excluded, only 19 per cent of exports by developing to developed countries benefited from "true" preferential treatment. On the other hand, true preferential duty-free treatment remains the dominant mode through which least developed countries gain access to the markets of developed countries. The proportion of least developed country exports benefiting from such preferences has

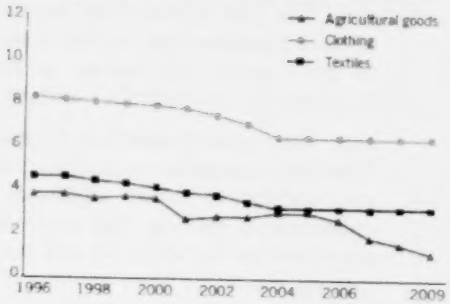
been increasing over the years, reaching 53 per cent in 2009. All but one of the developed countries have granted duty-free market access to at least 97 per cent of products originating from least developed countries[38] (see figure 9).

Figure 9

Developed countries' average tariffs on imports of key products from developing countries, 1996-2009 (percentage)



Developed countries' average tariffs on imports of key products from least developed countries, 1996-2009 (percentage)



Source: *Millennium Development Goal Report 2011*.

105. The main challenge remains to find ways to arrive at credible and effective policy coordination among major economies. In this regard, some consider that the G-20 framework for sustainable global rebalancing would be a good tool if it were made more specific and operational. Having clear and verifiable targets for desired policy outcomes would help make parties accountable. This would also be conducive for strategic investment in the infrastructure (power, transport, etc.) to support the transition to a green economy. A number of countries are already prioritizing green investment and developing strategies and policies to support it, while researchers are developing the conceptual and empirical support for such policies.

106. Need for affordable access to new and existing environmentally sound technologies is growing apace with the climate threat. Ever since the 1972 Stockholm Conference on the Human Environment, transfer of technology and knowledge-sharing have been an essential part of discussions on how to achieve sustainable development and address global sustainable development challenges. At the same time, developing countries will need support in building their own technological capacity so as to ensure that they undergo a smooth transition to a low-emissions economy and maintain competitiveness in an open global economy. In devising technology capacity-building plans, more focus could be given to the demands of users, improved aid coordination and donor collaboration, capacity-building investments on regional and global levels, and a greater role for information technology in capacity-building.

VI. Progress in the preparations for the United Nations Conference on Sustainable Development

107. Since the last report on Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development[1] and as at the time of submission of the present report, one intersessional meeting[39] and two meetings of the Preparatory Committee[40] have taken place. The first intersessional meeting was an informal meeting that considered the advanced unedited copy of the synthesis report on best practices and lessons learned on the objective and themes of the United Nations Conference on Sustainable Development. A Co-Chairs' summary was issued as the outcome of that meeting.[41]

108. The second Preparatory Committee meeting,[42] as an official meeting of the Conference preparatory process, considered the official synthesis report,[43] which was updated to reflect additional inputs and views from participants at the intersessional meeting. The proceedings of the meeting were further supported by my report on the objective and themes of the Conference.[28] The outcome of the meeting was a Co-Chairs' summary.[44]

109. The second Preparatory Committee meeting also adopted a decision in which the Bureau was requested to initiate an open, transparent and inclusive process led by Member States, to prepare in a timely manner a draft text, based on all preparatory inputs, to serve as the basis for an outcome document for the Conference. It also invited all Member States, the relevant United Nations system organizations, and relevant stakeholders to provide their inputs and contributions in writing by 1 November 2011, for inclusion in a compilation document to serve as the basis for the preparation of the zero draft of the outcome document. At the same time, it requested the Bureau to compile these inputs and contributions and present their compilation text to Member States and other stakeholders at the second intersessional meeting to be held in mid-December 2011 and to seek their comments and further guidance in order for the Co-Chairs to present, on behalf of the Bureau, the zero draft of the outcome document for consideration no later than early January 2012. It also recommended to the Bureau to convene a three-day meeting in January 2012, for the purpose of having initial discussions on the zero draft of the outcome document, and set aside one full week for negotiations in each of the months of February, March and April 2012, ensuring that all these meetings are informal informals.

110. The Preparatory Committee has decided the dates of the Conference, which will be 4 to 6 June 2012, to be preceded by the third meeting of the Preparatory Committee, from 28 to 30 May 2012.

111. The Bureau sent a letter in March 2011 to all Member States, the United Nations system organizations and other relevant stakeholders, inviting them to

[39] First intersessional meeting, 10-11 January 2011 in New York.
[40] Second Preparatory Committee meeting, 7-8 March 2011 in New York.
[41] See www.uncsd2012.org/rio20/index.php?page=view&type=13&nr=24&menu=25.
[42] See www.uncsd2012.org/rio20/index.php?page=view&type=13&nr=28&menu=24.
[43] See A/CONF.216/PC/8.
[44] See www.uncsd2012.org/rio20/index.php?page=view&nr=217&type=12&menu=24&template=435.

provide their inputs by 1 November 2011, and also issued a guidance note for the submission of inputs in July 2011.[45]

112. The Bureau also asked the Conference Secretary-General and the Conference secretariat to prepare a study on the five options of the Helsinki-Nairobi Outcome. The secretariat has initiated this action in consultation with the Executive Committee of Economic and Social Affairs Plus of the United Nations. The Executive Committee felt the need to broaden the scope of the study to include options for strengthening each of the three pillars and for their more effective integration. The study on the Nairobi-Helsinki Outcome will be a part of this broader study mandated by the Executive Committee, which will be presented in September 2011.

113. Member States,[46] United Nations system entities[47] and major groups[48] are also holding a number of preparatory meetings. Regional commissions have set the dates for their preparatory meetings between September and December 2011.[49] A number of documents have been produced in preparation for and as a result of discussions at these different meetings, but also as part of the preparation process more broadly.[50]

114. The Conference Secretary-General[51] with the dedicated secretariat[52] is supporting Member States in their preparatory work by co-organizing meetings, producing background papers and issue briefs, supporting meetings of the Bureau and preparing official documentation requested by Member States.

115. The secretariat is also supporting national-level preparations through a joint project proposal prepared by the Department of Economic and Social Affairs and the United Nations Development Programme. Given the urgent need for country-level support, the Department of Economic and Social Affairs is supporting, through its capacity-building programme, national preparations in 21 countries, most of which are least developed countries. Guidance notes have been sent to the United Nations country teams to assist countries in their preparations towards the Conference.

116. The secretariat team is working closely with the major groups to organize consultative workshops and other training activities. It is also continuing its efforts to raise funds for the Trust Fund of the Conference in order to be able to support better national preparations and participation of developing countries and major groups in the preparatory meetings.

117. The Conference website[53] has been upgraded. In addition to being more user-friendly, it provides a wealth of information on different aspects of the preparatory process leading up to the Conference and is updated daily. Protocols have been established to enable Member States and other stakeholders to log into their respective pages and directly update the information, and they can also submit

[45] See www.uncsd2012.org/rio20/index.php?page=view&type=12&nr=238&menu=32.
[46] See www.uncsd2012.org/rio20/index.php?menu=50.
[47] See www.uncsd2012.org/rio20/index.php?menu=29.
[48] See www.uncsd2012.org/rio20/index.php?menu=27
[49] See www.uncsd2012.org/rio20/index.php?menu=26.
[50] See www.uncsd2012.org/rio20/index.php?menu=20.
[51] Under-Secretary-General for Economic and Social Affairs as nominated by the Secretary-General in May 2010.
[52] See www.uncsd2012.org/rio20/index.php?menu=37.
[53] See www.uncsd2012.org/rio20/index.php?menu=14.

their inputs for the compilation document online. Regular updates are also provided through the Rio+20 biweekly newsletters.

118. The Conference secretariat is also continuing its preparations with the host Government, Brazil, and an interdepartmental task force has been established in this regard. The secretariat had undertaken four missions to Brazil by the time of writing the present report. The missions focused on assessment of security needs for the Conference, reviewing building and architectural requirements for holding the Conference and all other logistic preparations, including the number of conference rooms and the Host Country Agreement. Logistical preparations also include efforts by the Rio+20 secretariat and the host Government to adopt sustainable practices for holding the Conference, including investigating the possibility of a paperless conference.

119. Modalities for holding the Conference and its third Preparatory Committee meeting in line with available resources could comprise the following:

(a) United Nations Conference on Sustainable Development

High-level plenary meetings

- The opening high-level plenary meeting of the Conference from 9 a.m. to 1 p.m. on 4 June 2012 at the Conference venue;
- Four high-level plenary meetings to be held on 4 June from 3 p.m. to 7 p.m., on 5 June from 9 a.m. to 1 p.m. and from 3 p.m. to 7 p.m., and on 6 June from 9 a.m. to 1 p.m. at the Conference venue;
- The closing high-level plenary meeting on 6 June, from 3 p.m. to 7 p.m. at the Conference venue, which is expected to conclude with the adoption of the focused political document and the report of the Conference.

Main Committee

The Main Committee would be established according to the rules of procedure for the Conference. If the need arises, this Committee would meet in parallel with the plenary meetings, except during the opening and closing sessions. The principal task of the Main Committee would be to finalize the outcome document of the Conference and all the other outstanding matters.

High-level round tables[54]

There are several options for holding high-level round tables. One option would be to hold a total of four high-level round tables over the period of the Conference: one on the first day (in the afternoon), two on the second day (morning and afternoon) and one on the third day (morning). These high-level round tables could take place in parallel with the plenary meetings. Reports from these round tables could be presented at the closing plenary.

[54] A decision on the round table and partnership events, including on the number, timing, theme(s), participation and presentation of the outcome of the round tables, would need to be made in consultation with the Bureau for the Preparatory Process of the Conference.

Other Conference events

A total of four partnership events could be undertaken to provide an opportunity for Commission on Sustainable Development Partnerships and other multi-stakeholder implementation efforts to report on progress made and identify new activities and commitments. These events would take place on the first day (in the afternoon), the second day (in the morning and afternoon) and on the third day (in the morning). A report on these events would be presented at the closing plenary.

A Learning Centre could also be organized as early as the third session of the Preparatory Committee, which would run throughout the Conference, to offer courses on topics relevant to sustainable development, including those specific to the themes of the Conference, based on availability of suitable trainers and demand by participants. A course schedule with course descriptions, including information on the instructor and language of instruction, will be made available prior to the start of the Conference. A report on the Learning Centre would be presented at the closing plenary.

(b) Third session of the Preparatory Committee[54]

The third session of the Preparatory Committee could include opening and closing plenary meetings and meetings of an ad hoc working group on the outcome document, a multi-stakeholder round table and sessions reporting on the results of national voluntary assessments. The ad hoc working group on the outcome document would meet each day as needed during the Preparatory Committee session. It would begin work immediately following the opening meeting and adjourn prior to the closing plenary meeting, where it would present its report. The multi-stakeholder round table could meet in the afternoon of the first day and the morning of the second day. Two sessions on the results of the national voluntary assessments could be held on the afternoon of the second day of the third Preparatory Committee meeting and on the morning of the third day of the meeting. Reports on the multi-stakeholder dialogues and the national voluntary assessments would be included in the report of the third session of the Preparatory Committee, to be transmitted to the United Nations Conference on Sustainable Development.

VII. Next steps

120. The General Assembly will consider at its sixty-sixth session sustainable development issues under agenda item 19 (a).[55] This will provide an opportunity to finalize organizational details and modalities of the Conference. To that end, it is recommended that the General Assembly:

(a) Take note of the progress in preparatory activities for the United Nations Conference on Sustainable Development contained in the report of the Secretary-General and endorse the recommendations contained in the report of the second session of the Preparatory Committee for the Conference;

(b) Endorse the provisional agenda of the Conference;

[55] Based on the provisional agenda of the sixty-sixth session of the General Assembly (A/66/150).

(c) Decide on the organization of work of the third session of the Preparatory Committee and the organization of work of the Conference;[56]

(d) Approve the draft provisional rules of procedure of the Conference considered by the Preparatory Committee and contained in A/CONF.216/PC/4;

(e) Endorse the arrangements for accreditation and participation in the Conference of relevant non-governmental organizations and other stakeholders;

(f) Decide that the Conference shall be open to all States Members of the United Nations and States members of the specialized agencies, with the participation of observers, in accordance with the established practice of the General Assembly and its conferences and in accordance with the rules of procedure of the Conference;

(g) Request the Secretary-General to submit a report on the outcome of the Conference to the General Assembly at its sixty-seventh session, and decide to include in the provisional agenda of its sixty-seventh session the sub-item entitled "Implementation of Agenda 21 and the Programme for the Further Implementation of Agenda 21", taking into account the outcome of the Conference.

[56] On the basis of the proposal of the Bureau for the Preparatory Process of the Conference.